

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.11
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DAVID MONIE, PRESIDENT of G.P.M. ASSOCIATES, INC. - 856-354-2273

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the purpose of and justification for a \$16,667 fixed charge per month applicable to large industrial customers as set forth in Attachment B to the Company's petition (Please provide all workpapers and supporting documentation).

RESPONSE:

As in the case of General Water Service Charges, the negotiated rates specified in the agreement recover the fixed costs associated with service provided to the Project under fixed and volumetric components. The fixed costs associated with service provided to the Project is \$55,173 per month (see calculation below). The proposed fixed charge of \$16,667 per month is a negotiated amount, which recovers a reasonable portion of monthly fixed costs. The establishment of a fixed charge is important because fixed costs remain constant in the event of reduced consumption. The fixed charge component is necessary to stabilize operating revenues in the event of changes in use.

CALCULATION OF FIXED COSTS:

$\$890,195 / 12 = \$74,183$ per month (Total Cost per the Cost of Service Study)
912,500,000 gallons = average usage of the Project (2.5 Million Gallons per Day)
 $912,500,000 \text{ gallons} / 12 = 76,041,667$ gallons (average monthly use)
 $\$0.25/1000$ gallons = variable cost of water
 $76,041,667 \text{ gallons} \times \$0.25/1000 \text{ gallons} = \$19,010$ (variable cost per month)
 $\$74,183 - \$19,010 = \$55,173$ (Total Fixed Cost)

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.12
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER - 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide information as to whether Duke Energy or Consumers will pay for the cost of the meter and service line to serve the property.

RESPONSE:

Consumers Illinois Water Company per the Water Supply Agreement will pay for the Meter(s), Meter Vault, and Service Line to serve the Duke Energy Power Plant.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.13
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER - 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the rated capacity of the current treatment plant and the proposed treatment plant addition.

RESPONSE:

The current Water Treatment Plant is rated at 22 Million Gallons Per Day (MGD). The proposed treatment plant addition is proposed to increase the Plant's rated capacity to 28 MGD. The Engineering proposals are being solicited for an expansion to 30 MGD to evaluate the cost effectiveness of increasing the rated capacity by an additional 2 MGD during this plant expansion.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.14
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER - 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the rated capacity of the components of the treatment plant (intake, clarifiers, filters, pumping plant and waste treatment facility) for both the current treatment plant and proposed treatment plant addition.

RESPONSE:

The current Water Treatment Plant components' capacities are detailed in the "Comprehensive Capital Facilities Plan for the Kankakee Division" dated April 2000 which was produced by members of Consumers Illinois Water Company, Philadelphia Suburban Corporation and an outside consultant (former Vice President of Engineering for Consumers Water Company). Attached are excerpts from Section 5 of that Report which lists all of the components in the Plant and their respective capacities. The intake is not listed in this section. The intake structure in the Kankakee River has been evaluated and determined that the capacity is 80 MGD.

Camp Dresser & McKee (CDM) detail the capacity of the various components in the Plant after the Plant expansion. A table produced by CDM is attached which lists these capacities.

COMPREHENSIVE CAPITAL FACILITIES PLAN

Exhibit 5.1.b

Existing Facilities

Section	Facility	Date Built	Total Capacity	Adequacy	Condition
5.1.1	Mixing Basins				
	1 st	1930	42,000 gal *	2	4
	2 nd	1930	42,000 gal *	2	4
	3 rd	1930	42,000 gal *	2	4
	Raw	1942	76,000 gal *	2	4
	Mixing Equipment				
	1 st	1964		2	4
	2 nd	1964		2	4
	3 rd	1964		2	4
	Raw	1942		2	4
5.1.2	Flocculators (2)				
	Flocculation Basin #1	1951	0.148 MG *	4	5
	Flocculation Basin #2	1951	0.176 MG *	4	5
	Co2 Basin Flocculator	1942	0.253 MG *	4	5
	Flocculator Equipment	Identical		4	4
5.1.3	Sedimentation Basins (4)				
	60 ft. Primary Clarifier	1931	0.291 MG *	4	4
	100Ft. Primary Clarifier	1942	0.972 MG *	4	4
	90 Ft. Secondary Clarifier	1951	0.803 MG *	4	4
	240 Ft. Secondary Clarifier	1957	0.746 MG *	4	4
	Collectors				
	60' collector equip	1931		4	2
	100' collector equip	1942		4	2
	90' collector equip	1951		4	3
	240' collector equip	1957		4	2
5.1.4	Sludge				
	Sludge Valves – 7 each	1980	-----	5	4
	Sludge pump – 5 each				
	60 Sludge pump	1990	200 gpm	4	4
	100 sludge pump	1999	425 gpm	5	5
	100 sludge pump backup	1988	200 gpm	4	4
	90-240 sludge pump	1981	200 gpm	4	4
	90-240 sludge pump – backup	1986	200 gpm	4	4
	6" Sludge Line	1982	400 gpm	1	5
5.1.5	Wash Recovery Basin	None			

* Represents the volume of the treatment unit.

Section	Facility	Date Built	Total Capacity	Adequacy	Condition
5.1.6	Filters (17)		27 MGD		
	Drain Valves	1987	----	5	4
	Effluent Valves	1987	----	5	4
	Influent Valves	1987	----	5	4
	Sweep Valves	1987	----	5	4
	Wash Valves	1987	----	5	4
	Drain Actuators	1987	----	5	4
	Effluent Actuators	1987	----	5	4
	Influent Actuators	1987	----	5	4
	Wash Actuators	1987	----	5	4
	-Filter Media (Avg. 12 yrs. Old)	1987	----	5	4
	Filter Sweeps	1952	----	5	4
	Filter Boxes				
	- #1 through #10	1931	12 MGD	5	4
	- #11 - # 17	1966	19 MGD	5	4
	Backwash Pumps (2)		4 MGD	2	4
5.1.7	Chemical Feed Systems				
	- Lime Feeders (2)				
	North Feeder	1965	48,000#/day	5	4
	South Feeder	1965	48,000#/day	5	4
	- Lime Slakers (2)				
	North Slaker	1983	48,000#/day	5	3
	South Slaker	1983	48,000#/day	5	3
	Fluoride Feeder	1994	600 #/day	5	4
	-Fluoride Scale	1985	-----	5	4
	Chlorine Scale	1990	-----	5	5
	Chlorine Leak detector	1992	-----	5	5
	#1 Chlorinator (west)	1995	500#/day	5	5
	#2 Chlorinator (east)	1989	500#/day	4	5
	Chlorine evaporator	1995	3,000#/day	5	5
	CO 2 Evaporator	1985	5,000#/day	2	5
	Carbon Feeders	1998	1200#/day	5	5
	Carbon Feeders	1987	600#/day	2	2
	North ferric pump	1979	4000#/day	5	3
	Center ferric pump	1978	4000#/day	5	3
	South ferric pump	1979	4000#/day	5	3
	Polymer feed pump	1986	500 gpd	5	3
5.1.8	Clearwell - Total Capacity				
	- #1 (2 cells)	1929	1.25 MG	2	3

Section	Facility	Date Built	Total Capacity	Adequacy	Condition
5.1.9	H.S. Pump				
	#1 - 500 HP	1950	11.5 MGD	4	3
	#2 - 400 HP	1955	9.0 MGD	4	3
	#3 - 300 HP	1942	6.0 MGD	4	3
	#4 - 200 HP	1949	4.8 MGD	4	3
	Combination with the largest unit out of service		19.8 MGD	4	3
5.1.10	SCADA		-----	4	5
	PC	1995		5	5
	Software	1987		4	5
	PLC (6ea)	1984-1987		5	5
	Radio Transmitter & Recording Equipment	1985		5	1
	Chart Recorders	1984			5
5.1.11	175 kWh Generator(Emergency)	1991	-----	5	5
	750 KVA Cat – 3508 diesel	1989		1	5
	Transformer East	1968	500 KVA	2	5
	Transformer West	1968	500 KVA	2	5
	Primary Switch Gear	1950		3	2
	Secondary Switch Gear (8)	1950		3	2
5.1.12	Lime Silo (2)	1995	200T	5	5
	CO2 Bulk Tank	1985	26T	4	5
	Day Tank (Fluoride)	1992	550 Gal	4	4
	Carbon Storage Tank	1975	50T	5	5
	Lab Equipment	-----	-----	5	4
	Plant Backflow Prevention	1999		5	5
	Low service area backflow	1988	-----	4	3
	Softening plant backflow	1990	-----	4	3
	Fluoride Tanks (2)		3,000 gallons	4	4
	Coagulant Tanks (2)		4,000 gallons	1	3
5.1.13	Sludge Facility – 50' deep quarry	1800's	255,000 dry tons	1	4
	Outlet Dam Structure	1989		5	4
5.1.14	Low Service Pumps				
	# 1 - 75 HP	1950	12 MGD	4	3
	# 2 - 40 HP	1941	7.2 MGD	4	3
	# 3 - 40 HP	1941	6.0 MGD	4	3
	# 4 - 25 HP	1930	4.0 MGD	4	3
	Combination with the largest unit out of service.		17.2 MGD	4	3

Alternative 2: Three Treatment Trains with Solids Contact Clarifier

Peak Hour = 34.2 mgd
 Maximum Day = 30.0 mgd
 Average Day = 23.3 mgd
 Minimum Day = 20.6 mgd

Description	No.	Flow Rate (mgd)	Total Motor HP	Length (ft)	Width (ft)	Sidewater Depth (ft)	Total Volume (cu ft)	Total Volume/Area (gal/sf)	Horizontal Velocity (fpm)	Unit	Theoretical
										Loading Rate (gpd/sf / gpm/sf)	Hydraulic Detention Time (min/hrs)
Low Service Pumps											
Pump 1	1	4.0	25								
Pump 2	1	6.0	25								
Pump 3	1	7.2	40								
Pump 4	1	12.0	75								
Pump 5	1	6.4	30								
Pump 6	1	6.4	30								
Total		42.0	225								
Firm		30.0	195								
Excess/(Deficit)		0.0									
Mixing Basin A	1	6.0	10	30	22.5	15.25	10,294	77,000			18.5
Mixing Basin B	3	12.0	9	20	20	17.5	21,000	157,000			18.8
Conventional Primary Clarifier	1	6.0		60	60	11	39,600	296,000		1,667	1.2
Softening Primary Clarifier	1	12.0		100	100	13	130,000	972,000		1,200	1.9
Flocculation Basin 1	1	18.0		100	15	13.2	19,800	148,000	8.4		11.8
Flocculation Basin 2A/B	2	18.0		62.5	16.5	14.25	29,391	220,000	3.6		17.6
Secondary Clarifier A	1	10.3		90	90	13.25	107,325	803,000		1,272	1.9
Secondary Clarifier B	1	7.7		225	27	16.5	100,238	750,000		1,267	2.3
Flash Mixer	1	12.0	5	4	4	21	336	2,500			0.30
Presedimentation Basin	1	12.0		100	100	21	210,000	1,571,000		1,200	3.1
Solids Contact Clarifier	1	12.0		80	80	21	134,400	998,000		1.53	2.0
Wetwell/Recarb. Basin	1	30.0					-	44,000			2.1
Filters											
All In Service	17	30.0						5,327		3.9	
Largest Unit Out of Service								4,585		4.5	

Peak Hour =	34.2 mgd
Maximum Day =	30.0 mgd
Average Day =	23.3 mgd
Minimum Day =	20.6 mgd

[illegible]

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.15

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

CYNTHIA MUNGER, PRODUCTION MANAGER – 815-935-6530

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the average day and maximum day rate of treatment from the plant for the years 1995, 96, 97, 98, 99 and to date in 2000.

RESPONSE:

	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Average Day	11,627,359	11,484,945	11,327,258	11,241,000	11,647,858	11,992,770
Max Day	16,544,000	15,205,000	16,197,000	14,462,000	17,344,000	16,545,000

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.16

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

CIWC Exhibit 2.1, Table 5 (Attachment 2) indicates that the large industrial customer has a 10" meter. Will this be the only meter for this customer? If not please indicate the number and size of meters proposed. Also please provide a description of the meter or meters (i.e., disk, turbine, etc.).

RESPONSE:

The Company proposes to install two, 8 in. meters in parallel to serve this customer. The proposed meters would be turbine type.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.17
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DAVID MONIE, PRESIDENT of G.P.M ASSOCIATES, INC. – 856-354-2273

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

If CIWC Exhibit 2.1, Table 5 (Attachment 2) is correct, (there is one 10" meter for this customer) please explain why the proposed new customer will pay \$16,667 per month, while current customers with a 10" disk meter pay \$810 per month and those with a 10" turbine meter pay \$1020 per month. Please provide a detailed listing of costs that would support your answer, including all workpapers and supporting documentation.

RESPONSE:

The \$16,667 monthly fixed charge is a negotiated amount that assures that revenues will be received to cover a portion of the fixed cost associated with service provided to the project (see Data Response WD – 1.11). The charge is not based on the number or type of water meters. A 10" meter was utilized, for cost of service study purposes, since this is equivalent to the largest, currently used, meter size. As explained in Response to WD – 1.16, the Project will actually utilize two 8" meters.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.18
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER - 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the large industrial customer's Max day and Max hour demand factors.

RESPONSE:

The Duke electric generating plant is limited to a maximum flow rate of 4,200 GPM that equates to a rate of 252,000 gallons per hour or 6,048,000 gallons per day. The Water Supply Agreement allows Consumers Illinois Water Company to limit the flow to these rates.

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.19

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DAVID MONIE, PRESIDENT of G.P.M ASSOCIATES, INC. – 856-354-2273

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

On CIWC Exhibit 2.1, page 6, Mr. Monie states

“The factors for meter sizes larger than a 5/8” meter are set using the ratio of the relative capacities of the various meter sizes. This factor is not identical with the current factors that set the customer charges for the various meter sizes.”

Please explain where the new equivalent meter ratios came from and why the current ratios are not relevant.

RESPONSE:

The ratios of the relative capacity of the water meters, taken from AWWA's M6 Water Meter Manual, were used for cost of service study purposes for establishing the customer equivalent units. This statement simply points out that a different ratio is used in establishing the relative service charges among the various meter sizes.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.20
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL L. OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

- a). Please provide the total amount of acreage involved to construct the proposed mains to Duke facilities.
- b). Please provide a breakdown, by acreage, of the current use of the acreage involved with this proceeding e.g.: residential, agriculture, pasture and public.
- c). Please provide the amount of acreage that may be removed from current use do to a permanent structure being installed, such as a meter vault.
- d). Please provide the amount of acreage that will be required for working easements during the construction of the different main extensions. Provide the width of the working easement.
- e). Please provide the amount of acreage that will be required for permanent easements. Provide the width of the easement.

RESPONSE:

- a) The total amount of acreage involved to construct the proposed mains to Duke is estimated at 15 Acres. This estimate is based on a strip of land 44,000 ft. long and 15 ft. wide. All necessary easements have been acquired with the exception of the easement referenced in Data Response WD-1.20 (e) below. The remaining construction will be across Railroad or State Highway Rights of Way.
- b) The breakdown of the above acreage involved to construct the main is as follows:

Railroad ROW:	4.8 Ac.
Rural Road Assumed ROW:	0.7 Ac.
Agricultural:	0.5 Ac.
Commercial:	1.3 Ac.
Residential:	<u>7.7 Ac.</u>
Total:	15.0 Ac
- c) There will be approximately 0.0034 Ac. of land that will be changed from its current use due to the installation of a meter vault.
- d) There will be some working easements that will be required during the construction of the main extension which have not been identified currently. Temporary and permanent easements (15 ft width) for installation of the 24" main that is being installed in 2000 have been obtained and can also be used for the installation of the 20" main.
- e) Approximately 0.7 Ac. of land will be required for permanent easement. This easement is along 6000 N. Road and it is proposed to be 15 ft. in width.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.21
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL L. OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Describe the condition to which any easement will be restored upon completion of construction of the transmission line.

RESPONSE:

The easement will be restored to its original condition or better upon completion of the construction.

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.22

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL L. OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide a detailed distribution map showing Consumers Illinois Water Company's (CIWC) existing distribution mains and the route of proposed transmission main extension from the water treatment plant to Duke facilities.

RESPONSE:

A detailed distribution map showing the Company's existing distribution mains at a scale of 1 in. equals 2000 ft. is attached and marked Exhibit WD-1.22A. The route of the proposed transmission main extension from the plant to Duke facilities is shown on the attached, 1 in. equals 300 ft. scale, partial map of the distribution system and is marked Exhibit WD-1.22B.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.23
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Has Mr. Bunosky or any other CIWC employee contacted the Illinois Historical Preservation Agency (20 ILCS 3420), to determine if any of the proposed certificated areas have been identified as historical or archaeological site.

RESPONSE:

The Illinois Historical Preservation Agency has been contacted on the Water Treatment Plant site. This was done for the construction being conducted this year during the permitting process with the IEPA. All property has been surveyed and a permit issued stating that construction can be conducted on all Company owned property at the Water Treatment Plant site.

The water mains to be constructed are in existing rights of way and no issues have arisen with construction in these rights of ways. The easement areas and IEPA construction permits have been secured for the installation of a 24" main being installed currently. During the process of securing these permits and easements, no issue arose with the construction. The line being constructed for the Duke electric generating facility will be installed along the same route as this line.

The tank site and booster station is on Company owned land and is adjacent to the Company's existing 3.0 million gallon tank. It is anticipated that the site will have no issues with the Illinois Historical Preservation Agency as the site has already been disturbed.

The Illinois Historical Preservation Agency will be contacted to confirm the above information.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.24
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Has Mr. Bunosky or any other CIWC employee contacted the Illinois Department of Natural Resources, as required under 20 ILCS 830 Interagency Wetland Policy Act of 1989 and 615 ILCS 5, and the Army Corp of Engineers, as required under CFR 401, to determine if any of the proposed certificated areas have been identified as flood plain areas and/or wetlands.

RESPONSE:

As indicated in Mr. Bunosky's Direct Testimony, the Company presently has a certificate authorizing it to serve the areas in which construction will occur.

The current construction area at the Water Treatment Plant required that the Illinois Department of Natural Resources be contacted and a permit requested for certain projects due to the area of the Plant being in the flood plain of the Kankakee River. The requested permits were secured. It is anticipated that the necessary permits will be secured for the Plant expansion once the preliminary Engineering drawings are completed. It has been determined since the construction area for the Plant expansion and the construction projects in 2000 are outside of the river's bank, that an Army Corps of Engineer's permit is not required.

The construction areas of the Transmission Main, Booster Station and Water Storage Facility are not in any wetlands or flood plain areas. The proper agencies will be contacted and preliminary engineering drawings will be sent to verify the determination.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.25
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

If the proposed 20" water main extension crosses through wetlands, describe in detail how the main extension would be constructed for wetlands.

RESPONSE:

The 20" water main extension does not cross any wetlands.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.26
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Has Mr. Bunosky or any other CIWC employee contacted the Illinois Department of Transportation, County Road Commissioners for permission to construct the proposed main extension on easements controlled by them?

RESPONSE:

The Company has contacted the Township Road Commissioner and the Illinois Department of Transportation for the main extension projects being constructed in 2000. All of the necessary permits for these projects were secured in a timely fashion with these entities. They have not been contacted on the 20" Transmission Main due to the 30% Engineering Drawings not being complete at this time. As soon as the drawings are completed, these entities will be contacted and the necessary permits requested. It is anticipated that the permits will be secured in a timely fashion.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.27
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
DANIEL L. OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the names of the landowners for the easements needed to construct the proposed main extension(s) to Duke facilities. Including those easements that Duke is required to obtain.

RESPONSE:

One easement is required along 6000 N. Road. The name of the entity that the easement is needed from is the "Wood Family Farm Partnership". No other areas have easement requirements.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.28
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please describe in detail how CIWC plans to provide 100 gpm by February 15, 2001.

RESPONSE:

The Company currently has a 16" Transite Main that is located from the Bradley Booster Station on State Route 50 and proceeds along State Route 50 to the Manteno Tank which serves the Company's service territory known as the Diversetech campus. This transmission main transports water to the Manteno Tank's ground reservoir under low pressure (between 30 – 40 psi). It is proposed to construct a 12" main extension from this existing 16" main from State Route 50 and 6000 Road along 6000 Rd to the proposed construction site of the electric generating plant. The existing main has capacity for 800 gallons per minute (GPM) and is adequate to serve the 100 GPM required for the Plant starting on February 15, 2000. Duke is required per the Water Supply Agreement to secure the necessary easements and Railroad permits for this main extension. Consumers Illinois Water Company will secure the Illinois Department of Transportation permit to cross State Route 50. The engineering plans are currently being developed for this main extension. The plans are expected to be completed by the end of October and the required permits secured by the end of November. Construction is estimated to take 20 days. The main extension is expected to be completed by January 1st, 2001 which allows for 45 days of delays due to weather, permit application processes etc.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.29
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please describe in detail how CIWC plans to provide 350 gpm by October 15, 2001.

RESPONSE:

The main extension described in response WD-1.28 will be the same main extension that will provide the required flow of 350 GPM on October 15, 2001.

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.30

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide a detailed breakdown of the \$4,970,000 for the 20" water transmission main extension to serve Duke facilities.

RESPONSE:

The detailed breakdown of the \$4,970,000 for the 20" water transmission main is attached and marked Exhibit WD-1.30.

**DUKE ENERGY TRANSMISSION MAIN
CONSTRUCTION COST ESTIMATE**

LABOR TO INSTALL ONLY (MATERIAL BY CIWC)

ITEM	QUANTITY	UNIT PRICE	EXTENSION
Mobilization (Not to exceed 5% of total)	Lump Sum		\$ 100,000.00
20" D.I. Water Main PC 250	44,000 L.F.	\$ 25.00	\$ 1,100,000.00
20" MJ Butterfly Valve	27 EA.	\$ 250.00	\$ 6,750.00
Fire Hydrant with Valve and Tee	20 EA.	\$ 275.00	\$ 5,500.00
Tie-Ins to Existing Mains	3 EA.	\$ 2,500.00	\$ 7,500.00
Soldier Creek Crossing With 20" Main	JOB		\$ 17,500.00
Traffic Control	JOB		\$ 45,000.00
30" Bore & Encase in Soil (.375" Wall)	560 L.F.	\$ 300.00	\$ 168,000.00
30" Bore & Encase in Rock (.375" Wall)	75 L.F.	\$ 775.00	\$ 58,125.00
30" Bore & Encase in Soil (.688" Wall)	320 L.F.	\$ 420.00	\$ 134,400.00
30" Bore & Encase in Rock (.688" Wall)	168 L.F.	\$ 825.00	\$ 138,600.00
Rock Excavation	1,800 CU. YD.	\$ 100.00	\$ 180,000.00
Trench Backfill (CA 7)	20,616 CU. YD.	\$ 13.00	\$ 268,008.00
Aggregate Driveway Replacement	118 SQ. YD.	\$ 20.00	\$ 2,360.00
Aggregate Shoulder Type B Replacement	1150 SQ. YD.	\$ 25.00	\$ 28,750.00
8" CA 6 Base Course Stone	10,610 SQ. YD.	\$ 5.00	\$ 53,050.00
10" CA 6 Base Course Stone	4,120 SQ. YD.	\$ 6.50	\$ 26,780.00
Bituminous Material Prime Coat MC-30	5,224 GAL.	\$ 1.00	\$ 5,224.00
Bituminous Concrete Binder Course - 1 1/2"	906 TON	\$ 47.00	\$ 42,582.00
Bituminous Concrete Binder Course - 2 Lifts, 4" Total	784 TON	\$ 47.00	\$ 36,848.00
Bituminous Concrete Surface Course - 1 1/2"	1,200 TON	\$ 47.00	\$ 56,400.00
Bituminous Concrete Surface Course - 2"	160 TON	\$ 47.00	\$ 7,520.00
PCC Sidewalk Removal & Replacement	320 SQ. FT.	\$ 6.00	\$ 1,920.00
PCC Driveway Removal & Replacement	8 SQ. YD.	\$ 40.00	\$ 320.00
B6 Curb Removal & Replacement	68 L.F.	\$ 20.00	\$ 1,360.00
B6.12 Curb & Gutter Removal & Replacement	100 L.F.	\$ 20.00	\$ 2,000.00
Parkway restoration, Seeding IDOT Class 1	8.54 AC.	\$ 4,085.48	\$ 34,890.00
15" CMP Culvert Replacement	80 L.F.	\$ 40.00	\$ 3,200.00
12" CMP Culvert Replacement	120 L.F.	\$ 20.50	\$ 2,460.00
Tree Removal and Replacement	40 Unit Dia.	\$ 120.00	\$ 4,800.00
Landscape Restoration	52 Sq. Yd.	\$ 100.00	\$ 5,200.00
Utility Casing for 24" Water Main	46 L.F.	\$ 90.00	\$ 4,140.00
Miscellaneous 24" Utility Casing	50 L.F.	\$ 70.00	\$ 3,500.00
Miscellaneous 18" Utility Casing	50 L.F.	\$ 80.00	\$ 4,000.00
Miscellaneous 15" Utility Casing	50 L.F.	\$ 75.00	\$ 3,750.00
Miscellaneous 12" Utility Casing	50 L.F.	\$ 70.00	\$ 3,500.00
Miscellaneous 8" Utility Casing	50 L.F.	\$ 60.00	\$ 3,000.00

TOTAL AMOUNT: \$ 2,566,937.00

**DUKE ENERGY TRANSMISSION MAIN
CONSTRUCTION COST ESTIMATE**

MATERIAL REQUIRED

Item	Quantity	Units	Unit Price	Total
20" DI Slip Jt PC 250	44000	LF	\$ 22.24	\$ 978,458.80
20" Field Lok Gaskets	200	Ea	\$ 260.64	\$ 52,128.30
6" Field Lok Gaskets	80	Ea	\$ 35.59	\$ 2,846.92
24"x 20" MJ Tee With Accessories	1	Ea	\$ 1,530.58	\$ 1,530.58
20"x 20" MJ Tee With Accessories	2	Ea	\$ 1,090.77	\$ 2,181.54
20"x 6" MJ Tee With Accessories	20	Ea	\$ 927.00	\$ 18,540.00
20"x 90 MJ Bends Less Accessories	48	Ea	\$ 620.86	\$ 29,801.44
20"x 45 SJ Bends Less Accessories	52	Ea	\$ 540.75	\$ 28,119.00
20"x 22 1/2 SJ Bends Less Accessories	24	Ea	\$ 540.75	\$ 12,978.00
20"x 11 1/4 MJ Bends Less Accessories	36	Ea	\$ 540.75	\$ 19,467.00
20" MJ Solid Sleeve With Accessories	4	Ea	\$ 376.98	\$ 1,507.92
20" Wedge Retainer Glands	204	Ea	\$ 201.88	\$ 41,183.52
Polywrap for 20" Pipe	47700	Ft	\$ 0.43	\$ 20,635.02
20" MJ Butterfly Valves	27	Ea	\$ 1,892.11	\$ 51,086.97
6" SJ Gate Valves	20	Ea	\$ 154.50	\$ 3,090.00
Fire Hydrants - 6 1/2 ft. Bury	4	Ea	\$ 578.86	\$ 2,315.44
Fire Hydrants - 6. Bury	10	Ea	\$ 571.65	\$ 5,716.50
Fire Hydrants - 4 1/2 ft. Bury	6	Ea	\$ 550.02	\$ 3,300.12
Valve Boxes	47	Ea	\$ 61.80	\$ 2,904.60
Valve Box Stabilizer	47	Ea	\$ 20.60	\$ 968.20

Subtotal	\$ 1,278,759.87
Tax	\$ 79,922.49
Total Material with Tax	\$ 1,358,682.37

Total Cost of Construction (Labor + Material)	\$ 3,925,619.36
--	------------------------

9/30/00

**DUKE ENERGY TRANSMISSION MAIN
TOTAL PROJECT COST ESTIMATE**

ITEM	ESTIMATED COST
Construction Cost (Labor Plus Material)	\$ 3,925,619.36
Engineering Design	\$ 235,537.16
Legal Fees	\$ 50,000.00
Easement Acquisition	\$ 30,000.00
Construction Staking	\$ 40,000.00
Inspection & Testing	\$ 60,000.00
Construction Management	\$ 117,768.58
Contingency	\$ 511,074.89

Total Project Cost: \$ 4,970,000.00

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.31
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the portion of the 20" transmission main that will be constructed within the city limits and its related cost breakdown.

RESPONSE:

The portion of the 20" main that will be constructed within the city limits is approximately 28,500 ft. The project cost of this portion of the main is estimated to be \$3,220,000

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.32
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

- a) Will CIWC accept bids for the proposed main extension to serve the prospective customers?
- b) If yes, has CIWC mailed the bids out and if so, when are they to be mailed back to the Company?
- c) If the bids have been received by CIWC, please provide a copy to us.

RESPONSE:

- a) The Company will be accepting bids for the construction of the main extension
- b) The bids have not been mailed out since the engineering has not been completed for the main extension
- c) See above

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.33
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide all documents, studies, and workpapers utilized by CIWC to propose a 20" dia. transmission main to serve the Duke facility.

RESPONSE:

The Company has attached Exhibit WD-1.33A, which is a draft memo, dated February 11, 2000, from Philadelphia Suburban Corporation's Engineering Department. This memo discusses the required distribution system improvements to serve the Duke electric generating facility. In the memo, the assumed demand for the Duke facility was 7 million gallons per day (MGD), or 4,860 gallons per minute (GPM). The recommended main size for the transmission main serving the facility was 24" per the memo. Subsequently, the demand required by the Duke facility was reduced to 4,200 GPM, and therefore, the Company scaled back the required size of the main. The attached Table labeled Exhibit WD-1.33B, which is a list of the maximum carrying capacity versus main size, was used to select a 20" main size for the Duke facility's water demand. The criteria utilized to develop the table was to limit the pressure loss to 3 ft. per 1,000 ft of main, and the velocity of the water to less than 5 feet per second for a cost effective design.

DRAFT

Philadelphia
Suburban
Water Company

Memo

To: Bill Ross
From: Dave Hughes
CC: Joe Thurwanger, Dan Oliver
Date: February 11, 2000
Re: Proposed Additional Water Distribution System Capital Improvements FOR Duke Power Water Demands, Kankakee, IL

Objective

To provide an effective list of additional capital improvements for the Kankakee distribution system that will allow the water system to meet anticipated future growth and supply up to seven million gallons per day (7.0 MGD) to a proposed Duke Power site. This cursory analysis starts from the schedule of capital improvements already proposed for Kankakee.

Background

PSW acquired the Consumer Water Systems including a significant system in Kankakee, IL in 1999. The primary features include a 22-MGD surface water treatment facility in the southern portion of the system, a three million-gallon on line storage facility and pumping station north of town. The three million-gallon tank provides supply water for the pumping station that sends water to a high-pressure zone to an area called Bourbonnais. Water between the plant and tank is primarily delivered by a 24" pipe that extends northward approximately 2½ miles, much of which is looped with a 20" water main. The system an additional 4 miles north to an area called Diversatech that has its own tank and booster station. The proposed Duke Power facility is located about halfway between the pump station and Diversatech. There are extensive areas for potential growth further north beyond Maneto to University Park. University Park has a limited, very hard groundwater supply.

Significant improvements have been proposed for the Kankakee system. These include replacement of the break-prone 20" portion of the 20"/24" loop, an enlargement of the Bourbonnais high pressure zone, eliminating the use of the 3MG tank as a float on the system, additional mains and new storage facilities. These are more fully described in Paul Noran's 1999 report on capital improvement needs.

Projected Demands for Model Analysis

Duke Power demands to be factored into a model simulation of the system are to assume peak use of 7.0 MGD. It has also been requested that an additional future peak need totaling 5.0 MGD for the University Park area (about 17 miles north of Diversatech) is considered in the analysis. This is to be added to a forecasted peak demand in the Kankakee system of approximately 20-MGD.

DRAFT

University Park

The addition of both 5.0-MGD and 7.0 MGD peak requirements for University Park and Duke Power would require an equivalent of a 30" water main from the water plant to the Duke Power site. (It would take about 75% of the useful capacity of parallel 24" mains.) The cost of a 7.5-mile main through the heart of the community would be very high. For demand of such magnitude and given the limits of the current water plant, it appears useful to consider a separate plant west of Bradley with a connecting main running 5-6 miles across open land to the Duke Power site. The analysis provided here only considers the more manageable assimilation of demand from Duke Power.

Duke Power

It is assumed that Duke power's 7.0-MGD (4860 gpm) requirement is a peak demand figure. A fluctuation of use throughout the day will vary somewhat with an maximum instantaneous demand 25% (6075 gpm). The extent of this variation should be determined, as it is the major factor in assessing needs for future elevated storage in Bourbonnais. Though Duke Power has no requested it, the high-pressure zone should be designed to meet an additional industrial fire flow requirement of 1500 gpm for 2 hours.

Model Analysis

Expanding the Bourbonnais Zone

It has already been proposed to increase the high-pressure zone to areas from North Street to Larry Power Road. The area beyond Larry Power Road further north to Diversatech including the Duke Power site is proposed to remain on the normal pressure zone. (Diversatech has its own booster system.) Boosting of the 16" transmission main in this area might be considered in the future (pending University Park and future development). Duke Power certainly represents that development. The 16" main is clearly inadequate for Duke Power and Diversatech (1.5-MGD peak). A 24" main is the minimum size that might be recommended to supply 7-MGD peak use and meet additional demands. Pressures from a 24" or larger main on the normal pressure system would be marginal (40-45 psi). Moreover, this additional load would compete continuously with water requirements to keep the Bourbonnais supply (3MG) tank adequately supplied. Consequently, it is recommended that Duke Power be placed on a still larger Bourbonnais system. Five concerns must be addressed:

- 1) Adequately supplementing the system from the water plant to the 3-MG tank to ensure adequate flow from the plant to the 3-MG tank.
- 2) Adequately increasing the storage supplying the Bourbonnais booster pumps to meet higher demands with higher diurnal variation in the high-pressure system.
- 3) Increasing pump output into the Bourbonnais system to deliver the required flow to Duke power and all users of the Bourbonnais system.
- 4) Adding adequate pipe to deliver water from the pump station to Duke Power.
- 5) Reviewing needs for addition elevated tank storage for fluctuations in demands from Duke Power

Model Runs

The model assesses these needs based on three types of runs termed high, average and minimum. The current future model of Kankakee contains demands totaling 21 MGD. This is considered the average condition of the peak day. The 7.0-MGD of Duke power is added 24" main connected directly from

DRAFT

the pump station to the Duke power site). Output at the plant is matched to this demand at 28 MGD (19,450 gpm). This "average" peak day condition is examined for adequate pressure, acceptable pipe velocities (friction loss) and tank conditions. For simulating the worst hours of the peak day 25% additional load is added throughout the system. The instantaneous 35-MGD rate (24,300 gpm) is met by the 28-MGD (19,450-gpm) plant output and storage (a net 4,850 gpm). Adequate pressure, acceptable pipe velocities (friction loss) and tank conditions are assessed. For simulating fill at off-peak, peak demand is reduced to 40% of the average peak day demand to simulate the minimum use. It is critical to evaluate how tanks can be refilled off peak to meet the peak day condition. If sufficient water cannot be returned to the supply storage for the Bourbonnais system, additional corrections are needed.

Analysis Results

Strengthening the main grid

The clearest need is between the plant and the 24" loop (Wildwood Tank). Model runs immediately showed high frictional losses in the mains. Initially a 24" main was placed from the plant to the loop. However, friction losses for the high plant output (28-MGD rate) still caused high velocities in mains near the plant. A 30" pipe totaling 8000 feet is recommended. The proposed 24" replacement of the 20" section of the loop is adequate for this level of flow. However, the pipe from the loop to the tank is not. The future recommendations in the Noran capital study included a 20" main from the loop to the tank. This should be upgraded to a 30" pipe (10,000 to 12,000 feet depending on the route.) Augmentation within the plant are assumed and not described here.

← ?

Adding pump reserve storage

The 7.0-MGD demand represents more than the forecasted peak day demand (6.5 MGD) of the future Bourbonnais system. With Duke use, 13.5 MGD must move in and out of the Bourbonnais input storage on a peak day. In 8 hours of peak output rate (125% normal, a 16.9 MGD or 11,700 gpm) was modeled and was partially offset by daytime fill rate of 10.0 MGD (6,950 gpm). This drops storage 2.3 million gallons in that eight-hour period. Allowance must also be made for downtime at the plant and for fire supply. Simply stated, with a doubling of demand with Duke Power demand, doubling of tank storage is appropriate.

✓

Adding pumps

The doubling of demand in the Bourbonnais system suggests a doubling of the size of the three variable speed Bourbonnais pumps. Additional information should be secured from Duke Power about days of little or no usage. With no demand from Duke, only one pump would be required to handle the minimum and maximum remaining demands. It is not known if the pump station location is adequate for an additional tank and pump station modifications. One alternative is to locate a second pump station near the 24" loop and send water into the high-pressure system at Bradley. However the main sizes are not sufficient for move water efficiently through the system. Further analysis may be required. The preliminary recommendation is for no less than four pumps with any three capable of delivering at the maximum output rate.

Adding pipe to deliver water to Duke Power

A 24" line (12,000 feet) running from the pump to Duke Power with a connection to the 12" main at Larry Powers Road appears adequate. Additional upsizing cost should not be borne by Duke Power.

← ?

DRAFT

Adding elevated tank storage

Requirements for more elevated tank storage in Bourbonnais should be a function of fire flow demands of Duke Power and daily variations in demand. Assuming 25% variation in demand through the day suggests an additional half million gallons of storage. This might be located on site.

SUMMARY

Additions proposed include:

- ◆ 8,000 feet of 30" pipe from plant to 24" loop
- ◆ 10,000 feet of 30" pipe from loop to pump station (difference between 20" already proposed and 30") with at least three interconnections.
- ◆ additional 3 million gallon ground storage tank
- ◆ pump station upgrade for variable output
- ◆ 12,000 feet 24" pipe from pump station to Duke Power with one interconnection.
- ◆ depending on diurnal variation at Duke Power, elevated storage between 0.5 and 2.0 million gallons

The estimated cost of this work is as follows: tank and pump station \$2.5 million, pipeline \$5.5 million (subtracting Kankakee portion of main already proposed). Elevated storage may add an addition \$0.5 million to \$1.5 million. The installation of 24" or 30" main essentially runs from Duke Power back to plant except for the stretch of 20" main in the loop already scheduled to be replaced with 24". The is not surprising given to the pipe required to move up to 5,000 gallons per minute from the source to the customer.

Carrying capacities for
transmission mains to meet
following criteria

1) $V < 5 \text{ fps}$

2) $h_L < 3 \text{ ft} / 1000 \text{ ft}$

Assumptions PC 250 C=120

Nom.

<u>Size</u>	<u>I.D.</u>	<u>Q, gpm</u>	<u>QMGID</u>	<u>V, ft/s</u>
16" *	16.76	2,430	3.50	3.54
20"	20.94	4,368	6.29	4.07
24"	25.06	7,007	10.09	4.56
30"	31.16	12,430	17.90	5.23
36"	37.36	20,030	28.85	5.86

*PC 300

Length of main from 3MG Tank
to Co-gen site $\sim 15,000 \text{ ft}$

As 20" Main Loss = 57.7 ft

As 24" Main Loss = 24.1 ft

Use 24" for cost effective design.

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.34

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

- a) Please provide the maximum capacity of the existing transmission main serving the surround area where the Duke facility will be located.
- b) Please provide the peak capacity of the existing transmission main serving the surround area where the Duke facility will be located, for 1996, 1997, 1998, 1999 and for 2000.
- c) Please provide all documents, studies, and workpapers utilized by CIWC to determine that the existing transmission main is not adequate to serve the Duke facility.

RESPONSE:

- a) The nearest transmission main to the Duke facility is a 16" transite main 2,400-ft east of the proposed Duke facility. The maximum capacity of this transmission main is estimated at 1,000 gallons per minute (GPM). This capacity is determined by the fact that the 16" main is on the low-pressure zone of the system. In order to maintain a minimum pressure of 30 pounds per square inch (psi), the maximum flow capacity of the main is 1,000 GPM.
- c) Please refer to Exhibit WD-1.34B for the peak capacities of the 16" transmission main for the years 1996 through 2000. To calculate the reserve capacity of the main, the average day demand of the Diversetech system was used to subtract from the 1,000 GPM peak capacity of the main. The average day demand was used rather than the peak demand due to the amount of storage available that is located in the Diversetech system area. Growth was not used in the calculation to determine the excess capacity since the additional demand placed on this transmission main would be only for a short period of time (1 year) before the permanent facilities are constructed.
- d) The Company references Exhibits WD-1.33A, Wd-1.33B, and WD-1.34B as its workpapers and documents utilized to determine that the 16" transmission main was not adequate to serve the Duke facility.

EXHIBIT WD-1.34B
RESERVE CAPACITY IN 16" TRANSMISSION MAIN TO DIVERSATECH

YEAR	AVERAGE DAY DEMAND FOR DIVERSATECH GPM	16" MAIN PEAK CAPACITIES	
		PEAK CAPACITY GPM	RESERVE CAPACITY GPM
1996	300	1000	700
1997	230	1000	770
1998	240	1000	760
1999	190	1000	810
2000	140	1000	860

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.35

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

- a) Will any of the proposed transmission main be constructed in farmland?
- b) If yes, has CIWC entered into an Agriculture Impact Mitigation Agreement? If yes, please provide a copy of the statement.
- c) If no, has CIWC contacted the Department of Agriculture concerning the proposed transmission main.

RESPONSE:

- a) Approximately 1,500 feet long by a 15 foot wide area will be required for the construction of the water main that will be constructed in farmland. The farmland will be returned to its same state that exists prior to construction.
- b) No. CIWC has not entered into an Agricultural Impact Mitigation Agreement.
- c) No. CIWC has not contacted the Department of Agriculture concerning the proposed transmission main

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.36
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide a detailed breakdown of the \$10,755,000 for the Supply Facilities to be constructed to serve Duke.

RESPONSE:

The \$10,755,000 is comprised of three areas.

- 1) \$8,435,000 – Water Treatment Plant Expansion (detail attached and also included in response to WD-1.01b)
- 2) \$1,920,000 – 3.0 million gallon standpipe. The following is the detail for the standpipe:
 - a) \$1,500,000 – Cost to construct the tank
 - b) \$ 100,000 – Instrumentation, Controls and piping
 - c) \$ 80,000 – Engineering
 - d) \$ 75,000 – Inspection
 - e) \$ 165,000 – Contingencies
 - f) \$1,920,000 - Total Project
- 3) \$400,000 – Construction of a 4,200 GPM Booster Station
 - a) \$ 75,000 – Pumps, Motors and equipment
 - b) \$ 50,000 – Electrical Installation
 - c) \$ 75,000 – Instrumentation, Controls and piping
 - d) \$ 128,000 – Building
 - e) \$ 45,000 - Engineering & Inspection
 - f) \$ 27,000 - Contingencies
 - g) \$ 400,000 - Total Project

**CONSUMERS ILLINOIS WATER COMPANY
KANKAKEE DIVISION
DUKE ELECTRIC GENERATING FACILITY - CAPITAL ADDITIONS REQUIRED TO SERVE**

ACCT #	ITEM	TOTAL ADDITIONS
Source of Supply Plant		
303	Land & Land Rights	0
304	Structures & Improv	0
305	Collect & Impound Res	0
306	Intakes	0
307	Wells & Springs	0
309	Supply Mains	0
Pumping Plant		
303	Land & Land Rights	0
304	Structures & Improv	
	Dry Well/Wet Well	304,317
	Building	180,999
310	Power Gen Equip	
	Generator Station	694,161
311	Elec Pumping Equip	
	High Serv Pumps	85,527
	Low Serv Pumps	167,076
Water Treatment Plant		
303	Land & Land Rights	0
304	Structures & Improv	
	Flash Mixer	45,747
	Presedimintation Basin	1,877,267
	Solid Contact Clarifier	1,680,705
	Clerawell	1,159,587
320	Water Treatment Equip	
	Filter Modifications	1,342,575
	Lime Feed Equip	238,680
	Ferric Chloride Equip	55,692
	Chlorine Feed & Storage	435,591
	Polymer Equip	35,802
	Co2 Equip	75,582
	PAC Equip	<u>55,692</u>
TOTAL PROPOSED ADDITIONS		8,435,000

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.37
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide a copy of the construction permit submitted to IEPA for the construction of the proposed transmission line to Duke facilities. Also, enclose a copy of IEPA approval for CIWC to construct the proposed transmission line to serve Duke.

RESPONSE:

The construction permit has not been applied for since the engineering drawings are not completed.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.38
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide a detailed explanation of the other applicable charges referred to by Mr. Bunosky in his direct testimony on page 7, line 2-4.

RESPONSE:

The other applicable charges are for municipal taxes that maybe imposed, Illinois Commerce Commission fees, franchise fees imposed on sales by a municipality, or any other taxes, or fees that maybe imposed on the revenue that CIWC bills its customers. These charges are required by an entity and placed on the water bill based on the revenue generated by that water bill. The collection of those charges are done by CIWC but remitted to the appropriate entity.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.39
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
TERRY J. RAKOCY, PRESIDENT – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide all documents, studies, and workpapers utilized by CIWC to determine that Duke should pay \$75,000 in recognition of costs which CIWC has and will incur in connection with the Agreement and regulatory approval process.

RESPONSE:

The \$75,000 payment by Duke Energy is a negotiated payment for services needed to file the current Petition before the Illinois Commerce Commission (ICC). Due to the very restrictive time requirement placed on the filing before the ICC and the approval by the ICC, it was determined through negotiations between Duke Energy and CIWC, that Duke Energy should pay the costs for legal, expert consultants, and other expenses that may be incurred by CIWC. The price was determined by telephone request of our Attorney and Cost of Service Consultant. No formal written responses were received. Duke Energy agreed to the \$75,000 as a fair payment for the filing.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.40
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON(S) FOR RESPONSE:
TERRY J. RAKOCY, PRESIDENT – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the number of customers and/or developers that CIWC charged a fee for the recognition costs which CIWC has incurred in connection with an agreement and regulatory approval process.

RESPONSE:

Without going back through the Company records to determine the actual number of special contracts which required a filing before the Illinois Commerce Commission (ICC), it is accurate to say that all special contracts which required ICC approval were charged legal fees for the filing. It is customary to charge legal and consultant fees to a developer who requests a deviation to the standard tariff of the company.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.41
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide all documents, studies, and workpapers utilized by CIWC to determine that Duke should pay \$2,000,000 buy-out fee.

RESPONSE:

The \$2,000,000 buy-out fee was a negotiated amount with Duke Energy. It was an estimate based on the determination that it would require approximately two years to recover the revenues lost due to a closing of the Duke facility. The estimate was based on the projected future revenue being generated by the facility that would be lost and related costs. No documents, work papers and or studies were utilized for the determination of the exact amount.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.42
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
DAVID W. LEPPERT, VICE PRESIDENT/TREASURER – 815-935-6535

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please explain how the accounting treatment would be handled for the proposed main extension.

RESPONSE:

Duke Energy will deposit funding for the main extension project into an escrow account. As a vendor invoice becomes due, either singularly or in a batch depending on the timing and materiality of any outstanding invoices, Consumers Illinois Water Company will draw from the escrow account to pay the currently due invoice(s). At this time, the amount drawn will be recorded on Consumers' ledger as follows:

	Debit	Credit
Cash	XX	
Contributions-In-Aid of Construction		XX

With the payment of each invoice for the project recorded as follows:

CWIP (Project #)	XX	
Cash		XX

This process will continue until the project is completed, at which time the amount in CWIP will be closed to Plant In Service.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.43
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DAVE MONIE, PRESIDENT of G.P.M. ASSOCIATES, INC. - 856-354-2273

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the amount of operating expenses and net income the Company expects to experience in 2001, 2002 and 2007 from the proposed transmission main extension to provide service to Duke. Provide all workpapers.

RESPONSE:

Revenue and expenses depends on the amount of water that is delivered which, in turn, depends on the amount of electric power that is ultimately produced by Duke. CIWC estimates that, once the plant goes into service for an entire year, estimated to be June 1, 2002, there will be an average annual consumption of 912,500,000 gallons per year of full operation. The total, average annual revenues, based on this consumption level, will be \$884,375 as calculated on Table 8 of CIWC Exhibit 2.1. Therefore, this is the amount of Revenue estimated in 2007 without any rate adjustments occurring between 2005 and 2007. This is approximately equal to the fully allocated cost of service calculated in this study to be \$890,195, also shown on Table 8 of CIWC Exhibit 2.1.

For 2001, the estimated Revenue from the Duke facility is \$16,500 for the year based on the estimated water usage for construction.

For 2002, the estimated Revenue from the Duke facility is \$537,000 for the year based on an estimated start up date of the facility of June 1, 2002.

The Company does not have any calculations for a Net Income for the Project.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.44
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

THOMAS J. BUNOSKY, VICE PRESIDENT/DIVISION MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please describe the alternative source of water supplies, as referenced in Mr. Bunosky's direct testimony on page 6.

RESPONSE:

The alternative source of water that is available to the Duke electric generating facility is the Kankakee River Metro Agency's Wastewater Treatment Plant effluent. The effluent is not currently utilized by any entity. The average daily effluent flow of the Wastewater Plant is above 10 million gallons per day and is therefore of sufficient quantity to supply the Plant. During the negotiations with Duke Energy on the Water Supply Agreement, numerous representations were made by Duke Energy that this alternative water supply was being investigated and discussions were ongoing with the Agency to supply the facility with the required water. During the negotiations with CIWC, this alternative water supply was the preferred choice for the water supply unless CIWC's cost of water could be reduced from the current tariff amount.

CONSUMERS ILLINOIS WATER COMPANY

ICC DATA REQUEST NUMBER WD-1.45

DOCKET NUMBER: 00-0591

DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DANIEL OLIVER, ENGINEERING MANAGER – 815-935-6535

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Will the proposed transmission line be connected to the existing mains? If yes, please provide a distribution map showing the location of the connections to the existing water mains.

RESPONSE:

Yes, the proposed transmission main will be connected to the existing mains at four locations; the Water Treatment Plant, the Wildwood Tank, the 3.0 Million gallon tank in Bradley, and the 12" main at Larry Power Road. These points of connection are shown on Exhibit WD – 1.22B

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.46
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:

DAVID MONIE, PRESIDENT of G.P.M. ASSOCIATES, INC. – 856-354-2273

RESPONSIBLE WITNESS:

THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

On Table 2 and Table 3 of CIWC Exhibit 2.1, T&D Mains are allocated to Base and Max hour functions. However, in the Company's last rate case (Docket No. 97-0351) T&D Mains were allocated to Base, Max Day, and Max Hour. Please provide all supporting data, as well as an explanation as to why the Company has decided to allocate Mains differently for this petition.

RESPONSE:

The treatment of the allocation of T&D Mains in this matter is the same as in the current base rate case (Docket No. 00-0377). The cost of service study in the previous case was done by a different consultant who used a different methodology for the allocation of T&D Mains. The AWWA M-1 Water Rates Manual (4th and 5th editions) allows for either treatment. Mr. Monie chose to allocate the mains between the Base and Max Hour functions only since there are very few, if any, T&D mains in the Kankakee Division that are designed to meet just Max Day flows.

CONSUMERS ILLINOIS WATER COMPANY
ICC DATA REQUEST NUMBER WD-1.47
DOCKET NUMBER: 00-0591
DATE SUBMITTED: 09/25/00

RESPONSIBLE PERSON FOR RESPONSE:
CYNTHIA MUNGER, PRODUCTION MANAGER – 815-935-6530

RESPONSIBLE WITNESS:
THOMAS J. BUNOSKY

PAGE 1 OF 1

DESCRIPTION OF DATA REQUESTED:

Please provide the expenses that will be incurred at the wastewater sludge holding facilities due to the addition of Duke Energy.

RESPONSE:

Sludge

Duke – 2,500,000 average day
912,500,000 gallons per year

Extra sludge generation

1200.24 dry tons

Cost at \$28.75/dry ton

\$34,506.90

Additional power to pump sludge

\$9,013.80